DYNAMIC MODULAR PKI ARCHITECTURE

ABSTRACT

A architecture for implementing PKI technology is described. Individual processing modules responsive to events are initiated. These individual software module building blocks, or "beans" are placed and linked together in an assembly line-like manner. Each bean is responsive to particular events and does one particular action in the scheme. For example, individual beans are responsive to different format PKI requests from a network, and in turn generate an event corresponding to that request. The event is broadcast to other beans that take the event and perform some other operation in the defined process. Other beans include certificate generators, publishers, manipulators, broadcasters to output streams, and also beans that can act as boolean branches. When strung together, the beans form a cohesive PKI schema. The ability to place beans in the flow and remove them allows great flexibility in developing PKI implementations. Typically, the beans are written in a environment and platform neutral manner, such as the Java® programming language. Not only may the beans be used to build both defined and customized PKI schemas easily, but the schemas may be spread out among many computing devices. Additionally, the use of Java® allows for fast implementation of additions to PKI schemas. Therefore, as new certificate standards, new formats, or new dissemination methods are developed,

appropriate beans may be written to implement these and dropped into place seamlessly.